



# A Detailed Look at Sound Bars

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## ENERGY STAR Certified Sound Bar Requirements

- Certified under the Audio/Visual Specification (effective on May 2013 and currently being revised), which also includes: Home-Theater-in-a-Box Systems, Wireless Speakers, Audio Amplifiers, Receivers, Shelf Systems, and Blu-ray and DVD players
- Spec requires **third-party certification** of:
  - Auto power down features
  - Maximum power draws when asleep and idle
  - Efficient power supplies
  - Minimum amplifier efficiency
  - Meeting international standards limiting hazardous material content.





## ENERGY STAR Certified Sound Bars – The Major Brands

**polk**audio®

**HITACHI**

**SAMSUNG**

**SHARP**

**VIZIO**

 Nakamichi®



## Sound Bar Features

Feature	Capability
<b>Bluetooth</b>	Ability to stream music wirelessly from a Bluetooth-enabled device
<b>Speakers</b>	Varying number of speakers increase sound's output and quality
<b>Design</b>	Different designs make units compatible with a wide range of spaces; they can be different colors or shapes, and may be wall-mounted
<b>Remote Control</b>	Operate from a distance
<b>Subwoofer</b>	Some sound bars come with wireless subwoofers to add additional bass to the unit's sound harmonics
<b>HDMI Outputs</b>	Connect to other devices with HDMI outputs
<b>Wi-Fi</b>	Connect to the Internet for music streaming and other services

## ENERGY STAR Sound Bars – The Benefits Are Clear

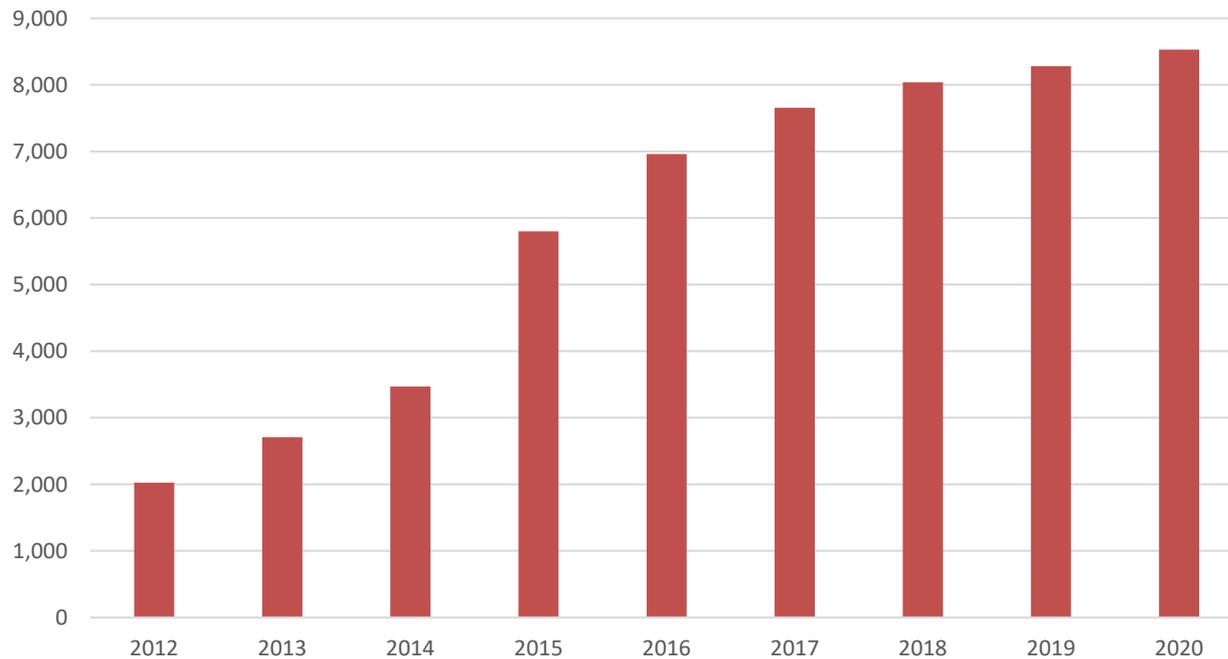
- ENERGY STAR qualified sound bars are approximately 70% more efficient than conventional products
- Consumers can maximize their energy savings by partnering ENERGY STAR certified televisions and sound bars
- Over its lifetime, an ENERGY STAR certified sound bars, on average, will save you over \$50 in energy costs, respectively
- A home equipped with TVs, set-top boxes, a Blu-ray player and a sound bar that have earned the ENERGY STAR, can save more than \$165 over the life of the products





## Sound Bars: Slowing Growth

US Soundbar Shipments (Thousands)



**A third of 18-34 expect to buy a sound bar in the coming 12 months!**  
- NPD Group



## Exploration of the Sound Bar Market

- NPD provided quarter point of sale data for sound bars for 2015 and 2016 gathered from retailers
- Attributes included:
  - **ENERGY STAR certified**
  - Brand
  - Item Description
  - Model
  - Units sold
  - Revenue
- Gain insight into the success of the ENERGY STAR certified sound bars and where there is room for improvement



## ENERGY STAR and non-ENERGY STAR Models Counts

Sound Bar Models Units Sold in 2015 and 2016			
	ES	Non-ES	% ES
VIZIO	31	14	69%
Samsung	16	32	33%
Polk	3	14	18%
Sharp	1	10	9%
Others (62 makers)	0	324	0%
<b>Total</b>	<b>51</b>	<b>394</b>	<b>11%</b>

Only 11% of sound bar models are ENERGY STAR certified



## ENERGY STAR and non-ENERGY STAR Units Sold

Sound Bar Units Sold in 2015 and 2016			
	ES	Non-ES	% ES
VIZIO	1,830,717	650,588	74%
Samsung	1,566,922	868,880	64%
Polk	59,262	46,836	56%
Sharp	4,943	22,254	18%
All Others	-	5,120,806	0%
<b>Total</b>	<b>3,461,845</b>	<b>6,709,365</b>	<b>34%</b>

Those few models that are certified represent 34% of units sold in 2015 and 2016



## ENERGY STAR and non-ENERGY STAR Revenue

Sound Bar Revenue Sold in 2015 and 2016			
	ES	Non-ES	% ES
VIZIO	\$ 282,099,982	\$ 88,391,490	76%
Samsung	\$ 299,485,965	\$ 212,062,306	59%
Polk	\$ 19,792,253	\$ 14,074,401	58%
Sharp	\$ 525,043	\$ 5,205,626	9%
All Others	\$ -	\$ 1,078,032,473	0%
<b>Total</b>	<b>\$ 601,903,243</b>	<b>\$ 1,397,766,297</b>	<b>30%</b>

Those few models that are certified represent 30% of sound bar revenue in 2015 and 2016



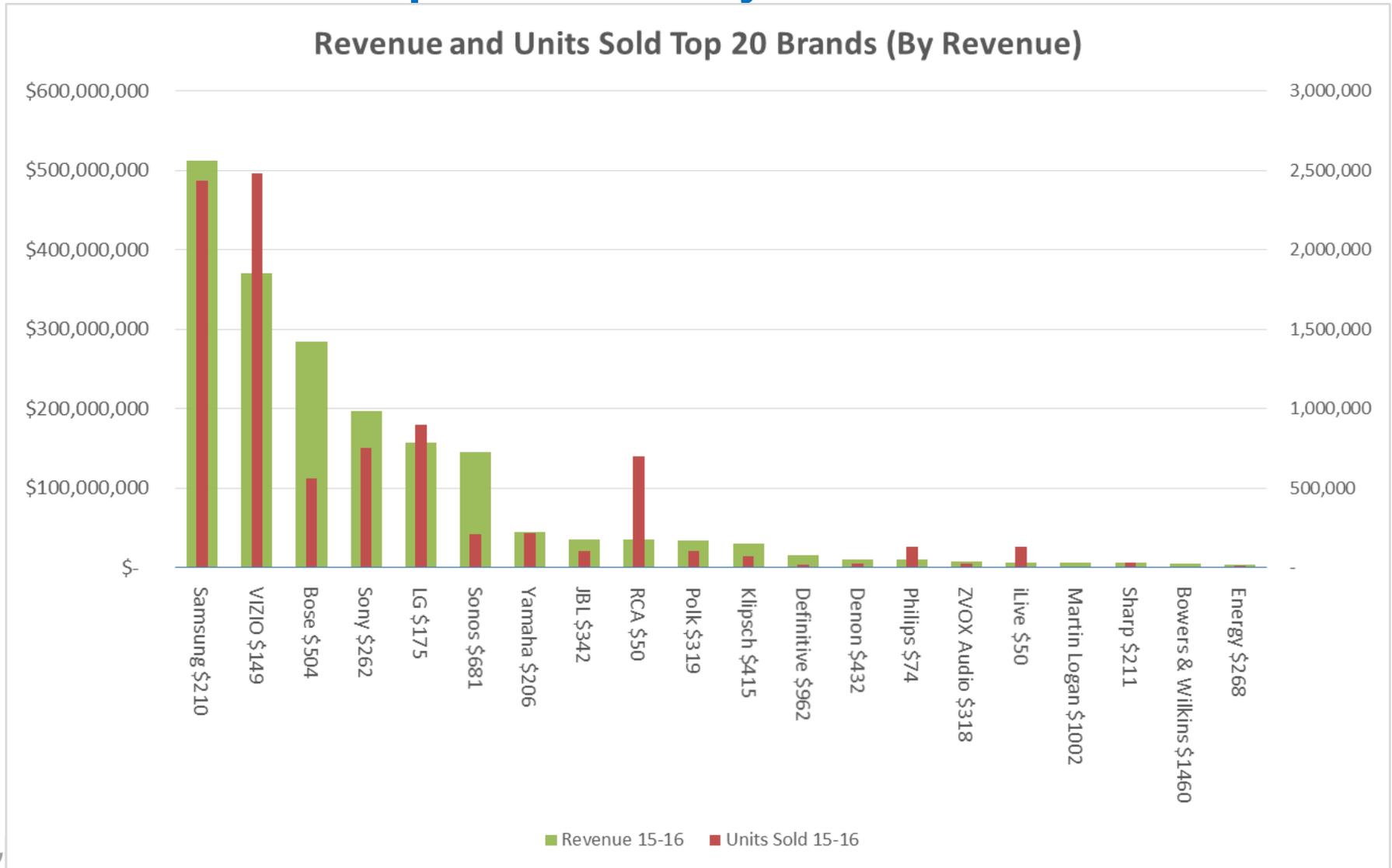
## ENERGY STAR and Non-ENERGY STAR Average Price Per Unit

Sound Bar Average Price in 2015 and 2016				
	ES	Non-ES	ES Premium	
VIZIO	\$ 154	\$ 136	13%	
Samsung	\$ 191	\$ 244	-22%	
Polk	\$ 334	\$ 301	11%	
Sharp	\$ 106	\$ 234	-55%	
All Others	\$ -	\$ 211	-100%	
Total	\$ 174	\$ 208	-17%	

Overall, ENERGY STAR certified sound bars are less expensive models

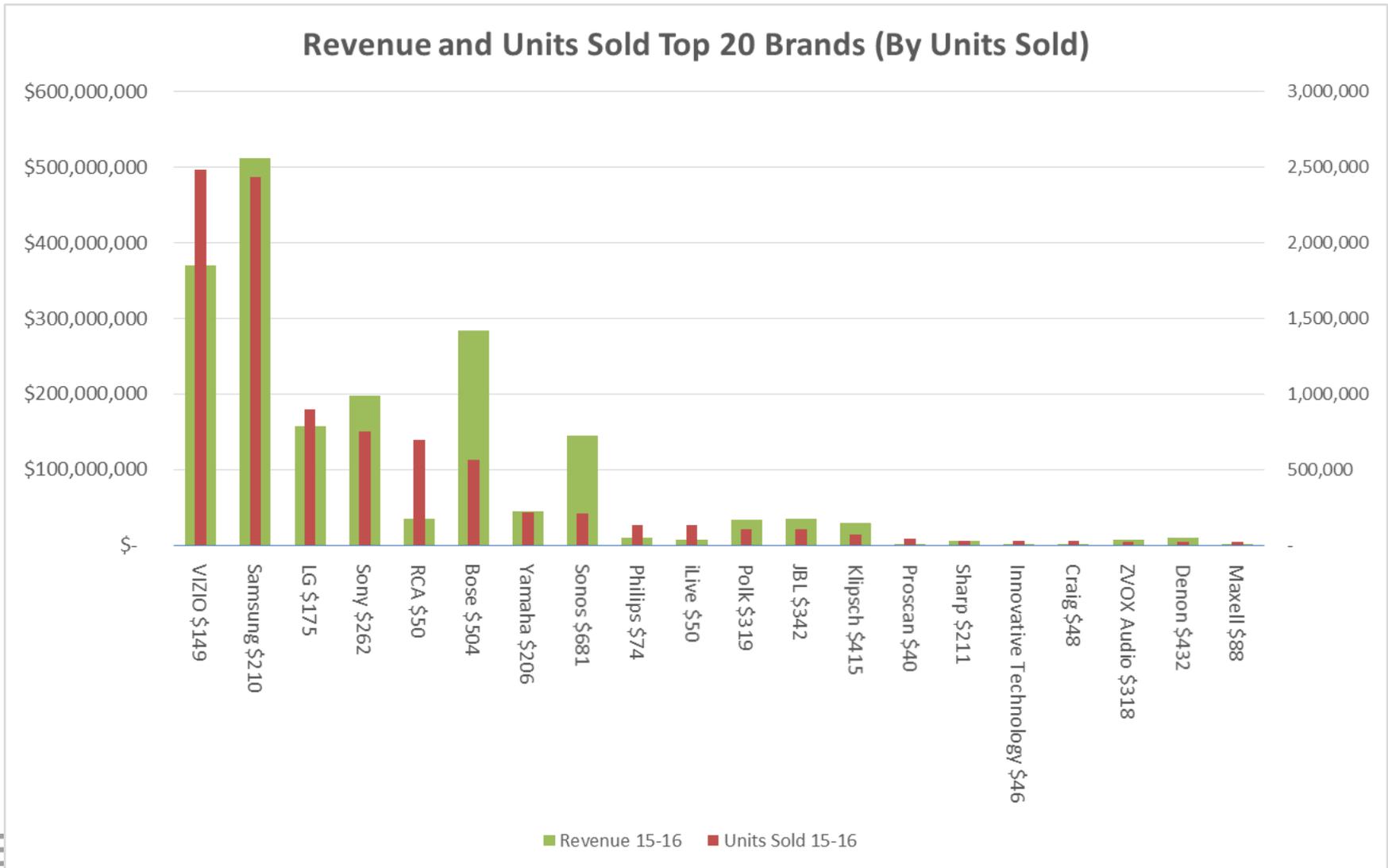


# Sound Bar Top 20 Brands by Revenue





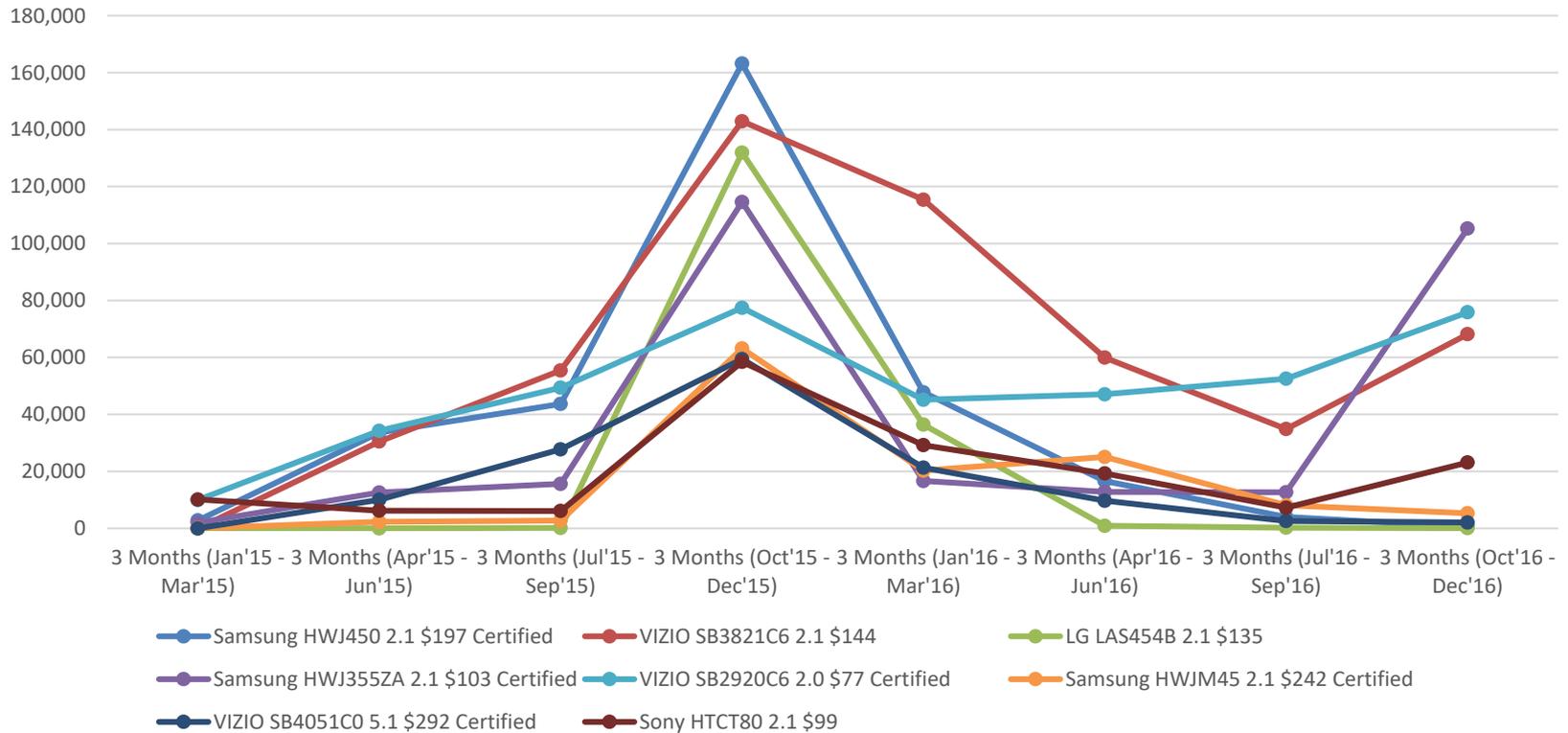
# Sound Bar Top 20 Brands by Units Sold





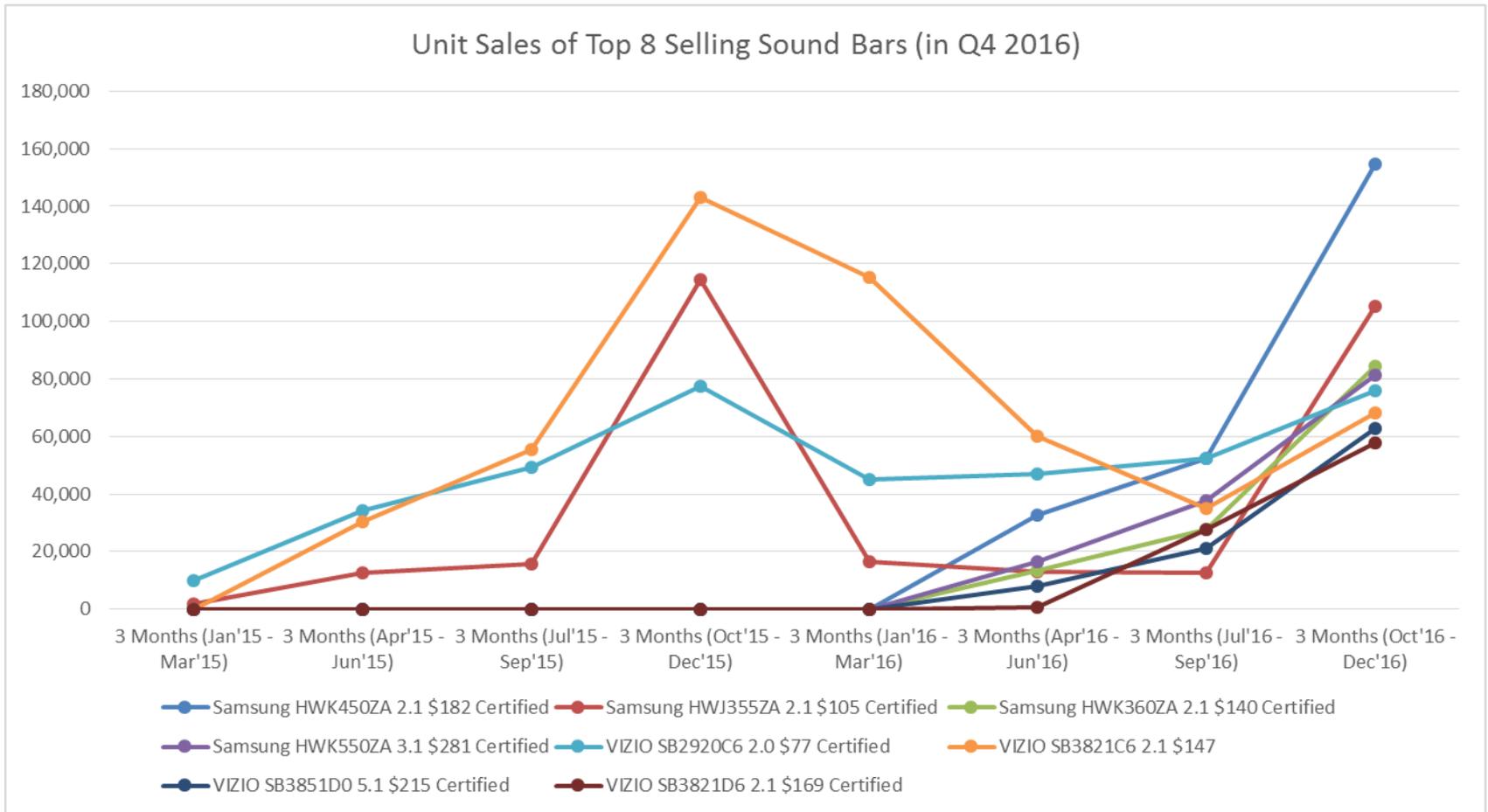
# Top 8 Selling Sound Bars Over Time

Unit Sales of Top 8 Selling Sound Bars (in Q4 2015)





# Top 8 Selling Sound Bars Over Time





## Summary

- Although only 11% of sound bar models are ENERGY STAR certified, those models represent:
  - 34% of units sold
  - 30% of revenues
  - 3 of top 8 selling sound bars were ENERGY STAR certified in Q4 2015
  - 7 or 8 top selling sound bars were ENERGY STAR certified in Q4 2016
- Although dominant players Samsung and Vizio have embraced ENERGY STAR certification of their sound bars, we need others to join (e.g., LG and Sony)
- New units seem to emerge and stay on the market for roughly 1.5 years before being replaced



# Sound Bars and ESRPP

October 25, 2017



## Overview

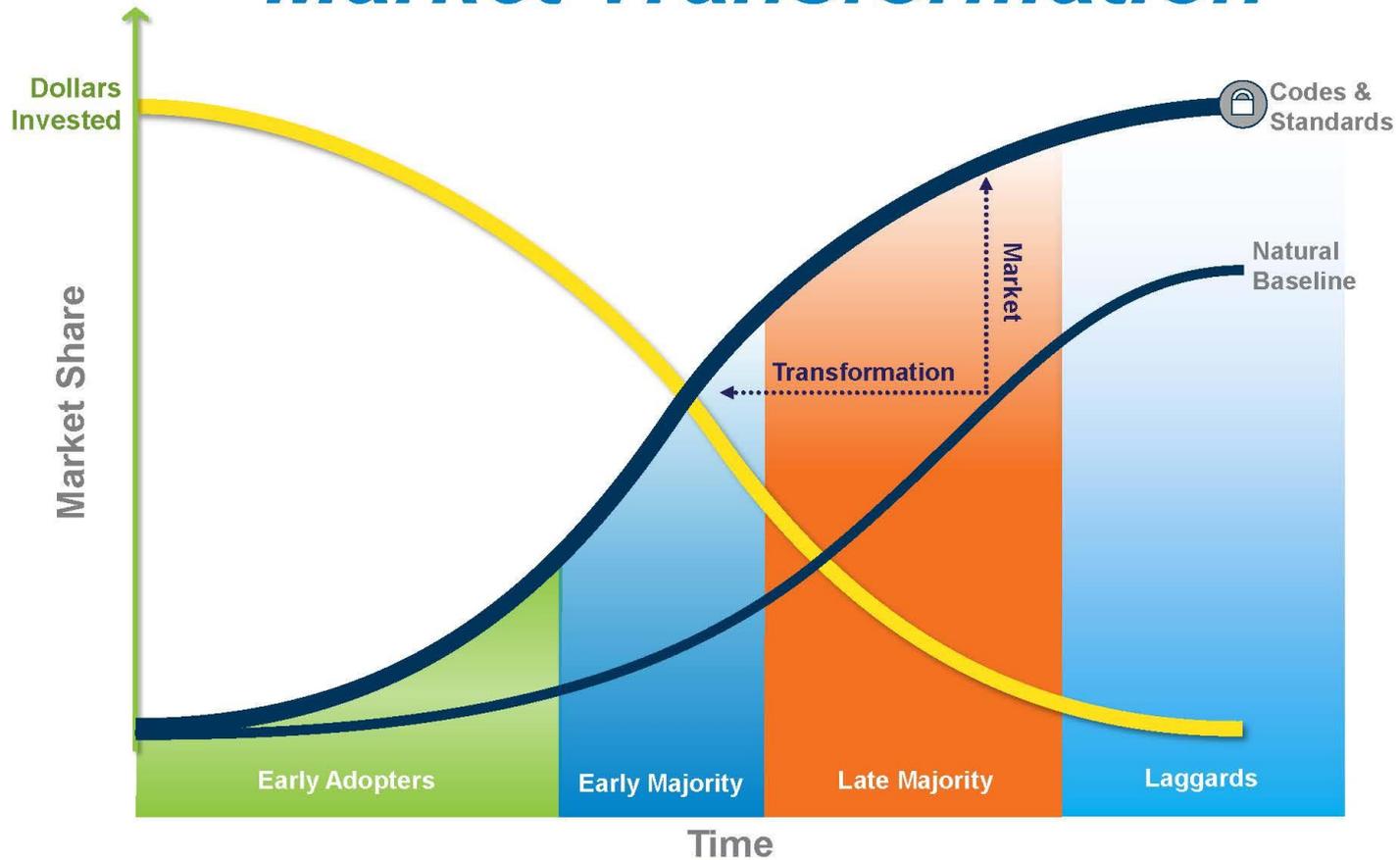
- Need for Change
- ENERGY STAR® Retail Products Platform (ESRPP)
- ESRPP Data Benefits
- ESRPP Collaboration



## Why the Need for Change?

- Shrinking per-unit energy savings and incentives
- Shrinking retailer participation in traditional energy efficiency programs
  - Not core to business
  - Introduce cost and complexity
  - Small incentives do not influence customers Data for savings and program attribution hard to secure

# Market Transformation



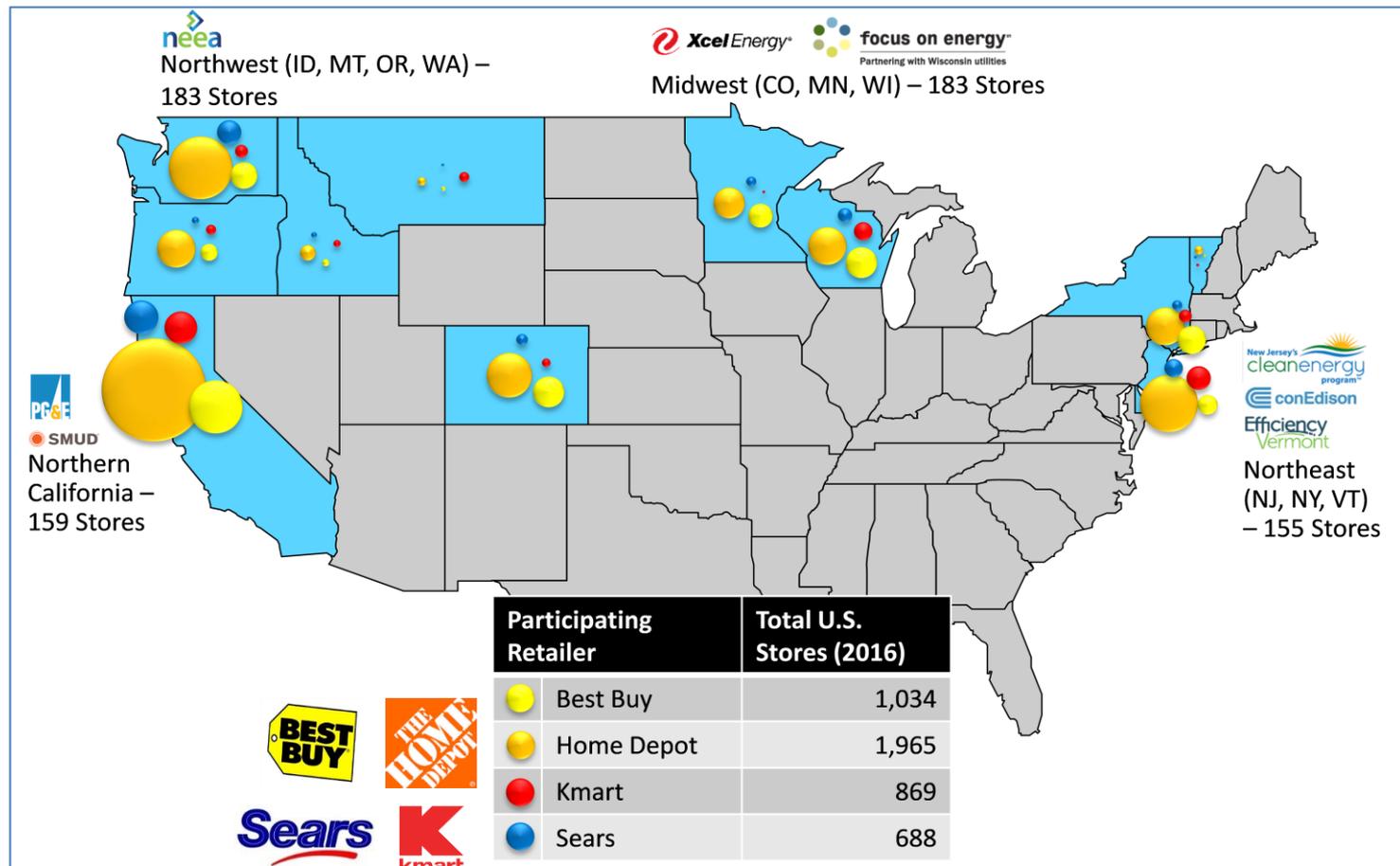


## What is the ENERGY STAR Retail Products Platform?

- Collaborative midstream initiative, facilitated by the U.S. Environmental Protection Agency
  - ENERGY STAR
  - Energy efficiency program sponsors
  - Retailer partners
  - Other key stakeholders
- Program sponsors provide incentives to retailers to encourage stocking, promoting, and selling a higher percentage of energy efficient products
- Small per-unit incentives may be significant for a retailer when compared to their profit margin on a product – thus influencing a retailer’s product stocking behavior
- Resulting increases in sales of high efficiency models can prompt manufacturers to permanently shift to production of these models

# 2016 Highlights

- 4 participating retailers
- 8 program sponsors in 11 states
- Nearly 18% of the U.S. market covered
- Almost 700 storefronts





## Products

- The 2016 RPP pilot included the following ENERGY STAR certified products:
  - Dryers—new category
  - Air cleaners—small unit sales, high per unit energy savings
  - Freezers—difficult to administer cost effective downstream rebates
  - **Sound bars (+15% and +50%)—high growth category, limited per unit savings**
  - Room air conditioners—revised specification, positioned to influence stocking plans for 2016
- In 2017, RPP expanded to include the following ENERGY STAR certified products:
  - Clothes washers—high per unit energy savings, opportunity to pair with clothes dryers
  - Refrigerators—difficult to administer cost effective downstream rebates

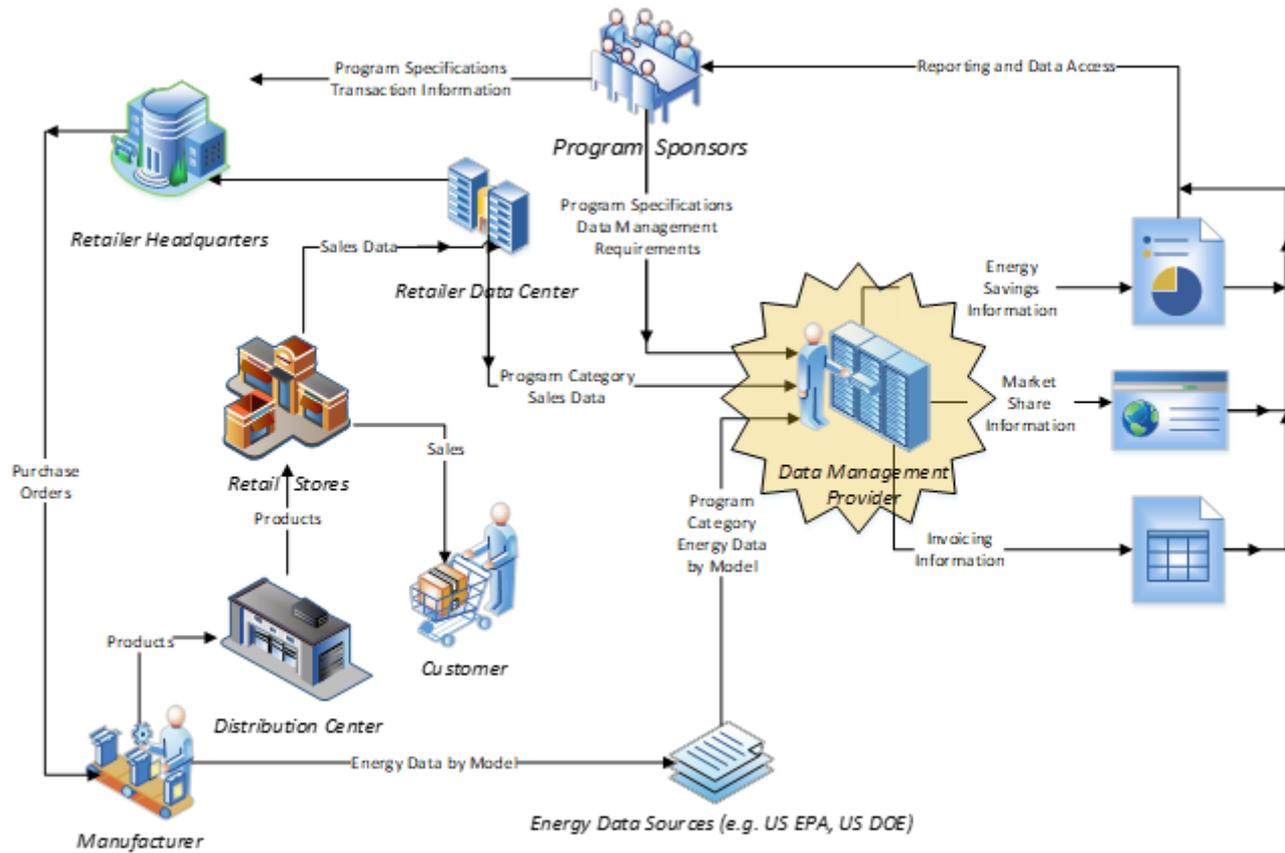




## ESRPP Data

- Benefits
  - Program sponsors gain access to better data
  - Retailers benefit from consistent program structure
- Requirements
  - Model number
  - Sales Date
  - Store ID
- Data solutions company
  - Serves as interface between retailers and program sponsors

# ESRPP Data Flow





## Benefits of Promoting Sound Bars through ESRPP

- ENERGY STAR qualified sound bars are approximately 70% more efficient than conventional products, but current market share is between 35%-40%
- ESRPP provides a platform to increase sales, while having access to full category sales data
- ESRPP also provides an opportunity to analyze markets for ENERGY STAR products, which is important in specification setting process



## Benefits of ESRPP Data

- Advanced tier of ENERGY STAR +15% and +50% in 2016
- Preliminary data from ESRPP shows majority of sales are in the higher tier, as shown in table below

	<b>All Sponsors</b>	
<b>Product</b>	<b>Basic Tier</b>	<b>Advanced Tier</b>
Air cleaners	74%	26%
Air conditioners	100%	NA
Dryers	99.8%	0.2%
Freezers	100%	NA
Soundbars	8%	92%
<b>Total</b>	<b>89%</b>	<b>11%</b>



## ESRPP Collaboration

- EPA working to make appropriate distinctions between audio equipment listed in the QPL, based on comments provided by ESRPP working groups
- Products task force provided comments on Version 4.0 ENERGY STAR specification for Audio/Video
- ENERGY STAR working with manufacturers to ensure units are certified



## ESRPP 2016 Highlights

- To date, ESRPP has successfully increased the number of retailer participants to five, increased the percent of households (18%) covered by an ESRPP territory and proven that utilities can work together with each other and retailers to deliver a nationally coordinated program
- Accomplishments through 2016 include:



Over 160,000 ENERGY STAR certified appliances and consumer electronics sold.



Enough electricity saved to power 2,000 homes for one year.



22 Million customers have access to certified products at almost 700 participating stores



**THANK YOU!**

**Questions?**